

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 17506 4/2/2001]

[Docket No. 2000-NM-15-AD; Amendment 39-12160; AD 2001-06-13]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model DHC-8-100, -200, and -300 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Bombardier Model DHC-8-100, -200, and -300 series airplanes, that requires inspecting the endcaps of the main landing gear selector valve for leaks of hydraulic oil and, if leaks are detected, replacing the leaking endcaps or the entire selector valve. This amendment also requires eventual replacement or rework of certain selector valves, which will terminate the repetitive inspections. This amendment is prompted by a report of the collapse of the main landing gear due to an external leak of hydraulic oil in the landing gear selector valve, resulting from a fracture of the endcap. The actions specified by this AD are intended to prevent leaks of hydraulic oil from the main landing gear selector valve, which could result in the collapse of the main landing gear.

DATES: Effective May 7, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 7, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: James E. Delisio, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7521; fax (516) 568-2716.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Bombardier Model DHC-8-100, -200, and -300 series airplanes was published in the **Federal Register** on September 27, 2000 (65 FR 58011). That action proposed to require repetitive inspections of the endcaps of the main landing gear selector valve for leaks of hydraulic oil and, if leaks are detected, replacing the leaking endcaps or the entire selector valve. That action also proposed to require eventual replacement or rework of certain selector valves, which terminates the repetitive inspections.

Public Comment

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request to Specify Terminating Action

One commenter, an airline operator, points out that replacement of the endcap having part number (P/N) 52982 on a main landing gear selector valve having P/N 57420-5 is virtually the same action as specified in paragraph (c)(2) of the proposed rule. Therefore, the commenter requests that the FAA specify that such replacement on a selector valve having P/N 57420-5 also constitutes terminating action for the repetitive inspections required by paragraph (a) of the proposed rule.

The FAA agrees with the commenter for the reason stated. We have revised paragraph (b)(1) of the AD to reflect that change.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the change described previously. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

The FAA estimates that 235 airplanes of U.S. registry would be affected by this AD, that it will take approximately 9 work hours per airplane to accomplish the required inspection and replacement of the main landing gear selector valve (if a leak of hydraulic oil is detected at the first inspection), and that the average labor rate is \$60 per work hour. If the operator chooses to replace the endcaps and do repetitive inspections prior to replacing the main landing gear selector valve, the number of work hours will be greater. Required parts will be provided at no charge to operators. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$126,900, or \$540 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption “ADDRESSES.”

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-06-13 BOMBARDIER, INC. (Formerly de Havilland): Amendment 39-12160. Docket 2000-NM-15-AD.

Applicability: Model DHC-8-100, -200, and -300 series airplanes, serial numbers 003 through 182 inclusive; and 184 through 531 inclusive; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the collapse of the main landing gear due to leaks of hydraulic oil from the main landing gear selector valve, accomplish the following:

Inspection

(a) Within 100 flight cycles after the effective date of this AD, perform a general visual inspection of the endcaps of the main landing gear selector valve for the presence of hydraulic oil, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-32-145, Revision 'A', dated December 3, 1999. Repeat the inspection thereafter at intervals not to exceed 400 flight hours until the requirements of paragraph (c) of this AD are accomplished.

NOTE 2: For the purposes of this AD, a general visual inspection is defined as: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

Replacement or Modification

(b) If any hydraulic oil is detected on either endcap during any inspection required by paragraph (a) of this AD: Prior to further flight, perform the actions specified in either paragraph (b)(1) or (b)(2) of this AD.

(1) Replace the existing aluminum endcaps, part number (P/N) 34629, with new stainless steel endcaps, P/N 52982, as specified in paragraph (b)(1)(i) or (b)(1)(ii) of this AD, as applicable; in

accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-32-145, Revision 'A', dated December 3, 1999.

(i) For main landing gear selector valves having P/N 57420, P/N 57420-1, or P/N 57420-3, repeat the inspections required by paragraph (a) of this AD at intervals not to exceed 400 flight hours until the requirements of paragraph (c) of this AD are met.

(ii) For main landing gear selector valves having P/N 57420-5, replacement of the endcaps having P/N 52982 constitutes compliance with the requirements of this AD.

(2) Replace the main landing gear selector valve with a valve having P/N 57420-5A, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-32-145, Revision 'A', dated December 3, 1999. This action terminates the inspections required by paragraph (a) of this AD.

NOTE 3: Use care when removing the endcaps, so that the internal components do not fall on the ground and get damaged.

(c) Within 12 months after the effective date of this AD: Perform the actions specified in either paragraph (c)(1) or (c)(2) of this AD as applicable, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A8-32-145, Revision 'A', dated December 3, 1999. Accomplishment of either paragraph (c)(1) or (c)(2) terminates the repetitive inspection requirements of this AD.

(1) If a main landing gear selector valve having P/N 57420, P/N 57420-1, or P/N 57420-3 is installed, remove it and replace it with a valve having P/N 57420-5A.

(2) If a main landing gear selector valve having P/N 57420-5 is installed, remove it and replace it with a valve having P/N 57420-5A or modify the valve to the P/N 57420-5A configuration (ModSum 8Q100802).

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

NOTE 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Bombardier Alert Service Bulletin A8-32-145, Revision 'A', dated December 3, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 5: The subject of this AD is addressed in Canadian airworthiness directive CF-99-22, dated August 30, 1999.

Effective Date

(g) This amendment becomes effective on May 7, 2001.

FOR FURTHER INFORMATION CONTACT: James E. Delisio, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256-7521; fax (516) 568-2716.

Issued in Renton, Washington, on March 22, 2001.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.